

What is claimed and desired to be secured by United States Letters Patent is:

1. An overhead airbag module housing, comprising:
a cavity for containing an airbag;
an airbag outlet, positioned such that the airbag deploys through the outlet
and in front of a vehicle passenger; and

5 a first sun visor attachment member for receiving a sun visor, positioned
rearward of the outlet such that the sun visor does not interfere with a trajectory of the
airbag when deployed.

2. The overhead airbag module housing of claim 1, wherein the airbag can
10 deploy between a header of a vehicle and the sun visor when the sun visor is mounted to
the first sun visor attachment member.

3. The overhead airbag module housing of claim 2, wherein the first sun
visor attachment member is positioned on the overhead airbag module housing that
15 defines the cavity for containing the airbag.

4. The overhead airbag module housing of claim 3, wherein the first sun
visor attachment member forms a recess in the housing, such that an undeployed airbag is
kept out of contact with a fastener used to attach the sun visor to the sun visor attachment
20 member.

5. The overhead airbag module housing of claim 2, wherein the sun visor
interconnects the first sun visor attachment member and the header.

5 6. The overhead airbag module housing of claim 2, further comprising a second sun visor attachment member positioned rearward of the outlet, on an inboard side of the vehicle, and the first sun visor attachment member is located on an outboard side of the vehicle.

10 7. The overhead airbag module housing of claim 6, wherein the first and second sun visor attachment members are located adjacent, but not part of, the cavity for containing the airbag.

15 8. The overhead airbag module housing of claim 2, wherein the first sun visor attachment member is a resilient substrate capable of being affixed between a headliner and a roof of the vehicle.

20 9. The overhead airbag module housing of claim 8, wherein the substrate is a resilient steel plate.

10. The overhead airbag module housing of claim 8, wherein the substrate is a resilient injection molded plate.

11. The overhead airbag module housing of claim 8, wherein the substrate is affixed to the headliner that has a mounting flap for attaching the headliner to a frame of the vehicle.

12. The overhead airbag module housing of claim 11, wherein the mounting flap is a strap attachable to an A-pillar of the vehicle.

5 13. The overhead airbag module housing of claim 12, wherein the substrate is disposed between the overhead airbag module housing and the headliner.

14. The overhead airbag module housing of claim 13, wherein the substrate has an area sufficient to spread an actuation load when the sun visor is actuated, such that
10 the sun visor does not become detached from or damage the headliner.

15. An overhead airbag module housing, comprising:
a cavity for containing an airbag;
a door, positioned such that the airbag deploys through the door and in front of a vehicle passenger; and

5 a first mounting bracket positioned rearward of the door for pivotably connecting to a sun visor, such that the sun visor does not interfere with a trajectory of the airbag when deployed.

16. The overhead airbag module housing as in claim 15, wherein the first
10 mounting bracket is an inseparable, integral part of the overhead airbag module housing.

17. The overhead airbag module of claim 15, further comprising a second mounting bracket for detachably connecting to the sun visor, wherein the second mounting bracket is positioned rearward of the door and on an inboard side of a vehicle,
15 and the first mounting bracket is positioned on an outboard side of the vehicle.

18. The overhead airbag module of claim 15, wherein the first mounting bracket is positioned on the overhead airbag module housing that defines the cavity for containing the airbag.

20 19. The overhead airbag module of claim 17, wherein the first and second mounting brackets are positioned adjacent, but not part of, the cavity for containing the airbag.

20. The overhead airbag module of claim 15, wherein the sun visor is attachable to the first mounting bracket and a header of a vehicle.

21. A sun visor attachment assembly to be used in conjunction with an overhead airbag module, comprising:

a resilient substrate for receiving a sun visor, the substrate affixed between a headliner and the overhead airbag module behind an outlet through which an airbag
5 deploys, such that a sun visor can be attached to the substrate out of a trajectory of the airbag when deployed.

22. The sun visor attachment assembly of claim 21, wherein the sun visor can be rigidly attached to the substrate behind the outlet.

23. The sun visor attachment assembly of claim 21, wherein the outlet of the overhead airbag module is located between the substrate and a header of a vehicle such that the airbag deploys between the substrate and the header of the vehicle.

24. The sun visor attachment assembly of claim 21, wherein the substrate is a resilient steel plate.

25. The sun visor attachment assembly of claim 21, wherein the substrate is a resilient injection molded plate.

26. The sun visor attachment assembly of claim 21, wherein the headliner has a mounting flap for attaching the headliner to a frame of a vehicle.

27. The sun visor attachment assembly of claim 26, wherein the mounting flap
is a strap attachable to an A-pillar of the vehicle.

28. The sun visor attachment assembly of claim 21, wherein the substrate has
5 an area sufficient to spread an actuation load when the sun visor is actuated, such that the
sun visor does not become detached from or damage the headliner.

29. The sun visor attachment assembly of claim 21, wherein the substrate has
a plurality of defined locations for receiving a plurality of fasteners in attaching the sun
10 visor to the substrate.

30. The sun visor attachment assembly of claim 21, wherein the substrate has
a plurality of weld nuts for receiving a plurality of fasteners in attaching the sun visor to
the substrate.

31. A sun visor attachment assembly to be used in conjunction with an overhead airbag module, comprising:

a headliner for covering an interior portion of a vehicle roof and the overhead airbag module;

5 a resilient substrate affixed between the headliner and the overhead airbag module just rearward of an outlet through which an airbag deploys, such that a sun visor can be attached to the substrate out of a trajectory of the airbag when deployed; and

a mounting strap for attaching the headliner to an A-pillar of a vehicle.

10 32. The sun visor attachment assembly of claim 31, wherein the substrate is a resilient steel plate.

33. The sun visor attachment assembly of claim 31, wherein the substrate is a resilient injection molded plate.

15 34. The sun visor attachment assembly of claim 31, wherein the mounting strap is a cut-out section of the headliner.

20 35. The sun visor attachment assembly of claim 34, wherein the substrate has an area sufficient to spread an actuation load when the sun visor is actuated, such that the sun visor does not become detached from or damage the headliner.

36. The sun visor attachment assembly of claim 35, wherein the substrate has a plurality of defined locations for receiving a plurality of fasteners in attaching the sun visor to the substrate.

5 37. The sun visor attachment assembly of claim 36, wherein the plurality of defined locations have a plurality of weld nuts for receiving a plurality of fasteners in attaching the sun visor to the substrate.

38. An overhead airbag module housing, comprising:
a cavity for containing an airbag;
an airbag outlet, positioned such that the airbag deploys through the outlet
and in front of a vehicle passenger; and

5 a sun visor attachment means for receiving a sun visor rearward of the
outlet, such that the sun visor does not interfere with a trajectory of the airbag when
deployed.

39. The overhead airbag module housing of claim 38, wherein the airbag
10 deploys between a header of a vehicle and the sun visor when the sun visor is engaged
with the sun visor attachment means.

40. The overhead airbag module housing of claim 39, wherein the sun visor
attachment means is positioned on the overhead airbag module housing that defines the
15 cavity for containing the airbag.

41. The overhead airbag module housing of claim 39, wherein the sun visor
attachment means is located adjacent, but not part of, the cavity for containing the airbag.

20 42. The overhead airbag module housing of claim 39, wherein the sun visor
interconnects the sun visor attachment means and the header.

43. The overhead airbag module housing of claim 39, wherein the sun visor attachment means is affixed between a headliner and the overhead airbag module housing.

5 44. The overhead airbag module housing of claim 43, further comprising a securing means for securing the headliner to a vehicle frame.

45. The overhead airbag module housing of claim 44, wherein the securing means secures the headliner to an A-pillar of the vehicle.

10 46. The overhead airbag module housing of claim 45, further comprising a load spreading means for spreading an actuation load of the sun visor when the sun visor is actuated, such that the sun visor does not become detached from or damage the headliner.